



EXECUTIVE FUNCTIONING SKILLS

**Classroom Tools &
Strategies to Support
Students with Autism**

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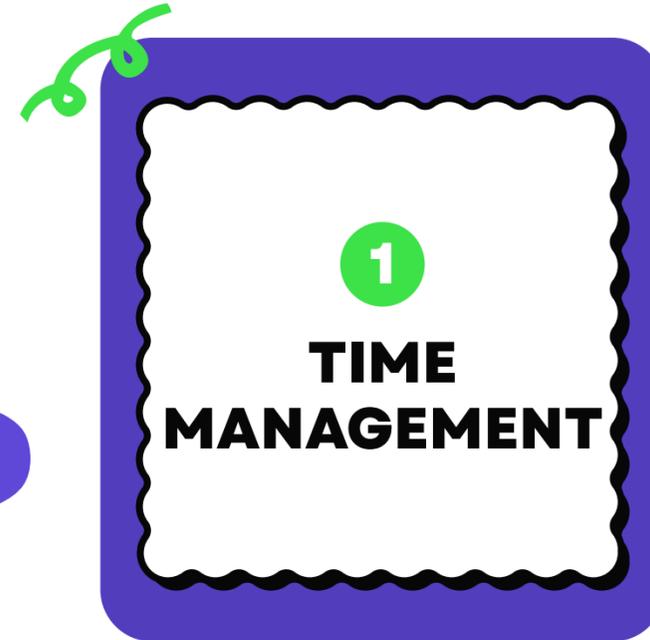
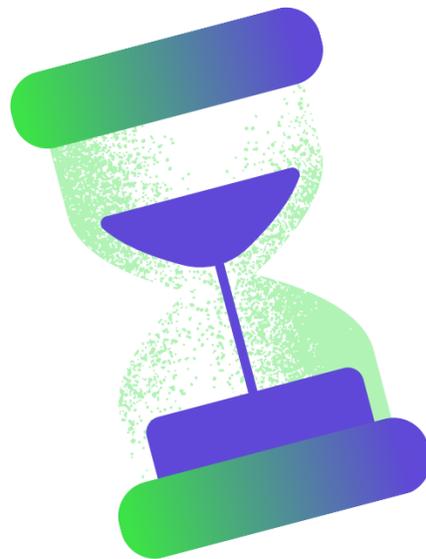
LEARNING OUTCOMES

- 1 **Types of Executive Functioning Skills**
- 2 **Strategies to Address**
- 3 **Tools to Support**



WHAT IS EXECUTIVE FUNCTIONING?

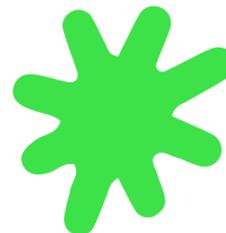
**A GROUP OF HIGHER-
LEVEL COGNITIVE
SKILLS THAT HELP US
PLAN, ORGANIZE, &
EXECUTE OUR DAILY
ACTIVITIES**



EXECUTIVE FUNCTIONING CHALLENGES



- **PHYSICALLY TENSE UP OR FREEZE IN THE FACE OF CHALLENGE**
- **AVOID THE TASK- ADDITIONAL CONVERSATIONS, URGES, OR DISTRACTIONS**
- **EXPERIENCE ANXIETY THAT STIFLES THEIR EF SKILLS**
 - **NOT SURE HOW/WHERE TO START, HOW TO MAKE A PLAN, OR WHAT TO DO**



- **EXHIBIT NEGATIVE SELF-TALK**
 - **"I DON'T KNOW WHAT TO DO." "I AM SO DUMB."**
- **REFUSE TO ENGAGE IN THE TASK...“THIS IS DUMB”**
- **EXPERIENCE A PANIC OR ANXIETY ATTACK**
 - **LOSS OF BREATH, FOCUS, AND MAY EVEN FAINT**



FREEZE, FLIGHT OR FIGHT

THE GROWING BRAIN

**EXECUTIVE
FUNCTIONING
(HIGHER
THINKING)
SKILLS
DEVELOP
THROUGH THE
20'S AND
RESIDE IN THE
FRONTAL
LOBE.**

Growing a Grown-up Brain

Scientists have long thought that the human brain was formed in early childhood. But by scanning children's brains with an MRI year after year, they discovered that the brain undergoes radical changes in adolescence. Excess gray matter is pruned out, making brain connections more specialized and efficient. The parts of the brain that control physical movement, vision, and the senses mature first, while the regions in the front that control higher thinking don't finish the pruning process until the early 20s.

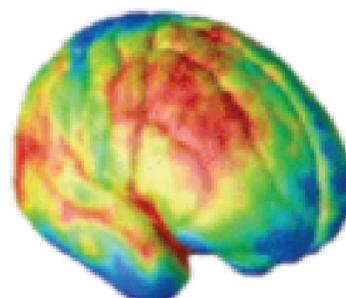
Gray
matter
density

Gray matter becomes less
dense as the brain matures.

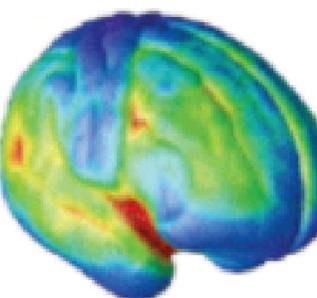
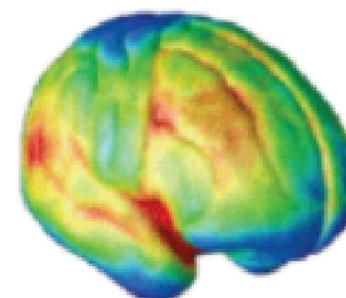


More
dense

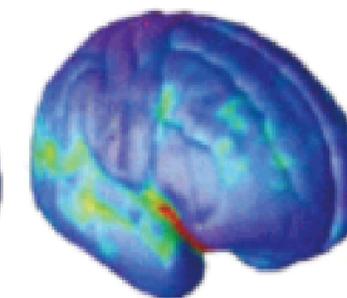
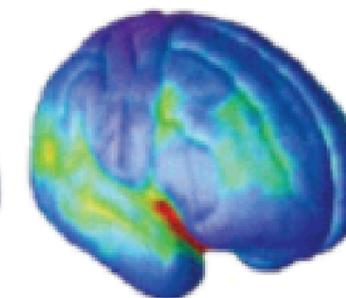
Less
dense



Age: 5



Adolescence



20

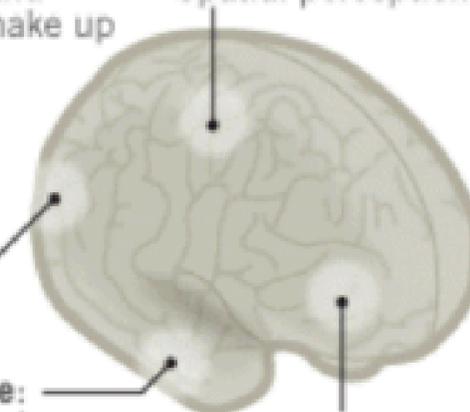
Gray matter: Nerve cell bodies and fibers that make up the bulk of the brain's computing power.

Parietal lobe: Spatial perception

Occipital lobe: Vision

Temporal lobe: Memory, hearing, language

Frontal lobe: Planning, emotional control, problem solving



Source: "Dynamic mapping of human cortical development during childhood through early adulthood," Nitin Gogtay et al., *Proceedings of the National Academy of Sciences*, May 25, 2004; California Institute of Technology



Three Areas of Executive Functioning

Planning, Organization & Time Management

Ability to create a roadmap and maintain a system to keep track and reach a goal in a timely manner

Attention & Focus

Ability to attend and follow through despite competing interests, distractions or even boredom

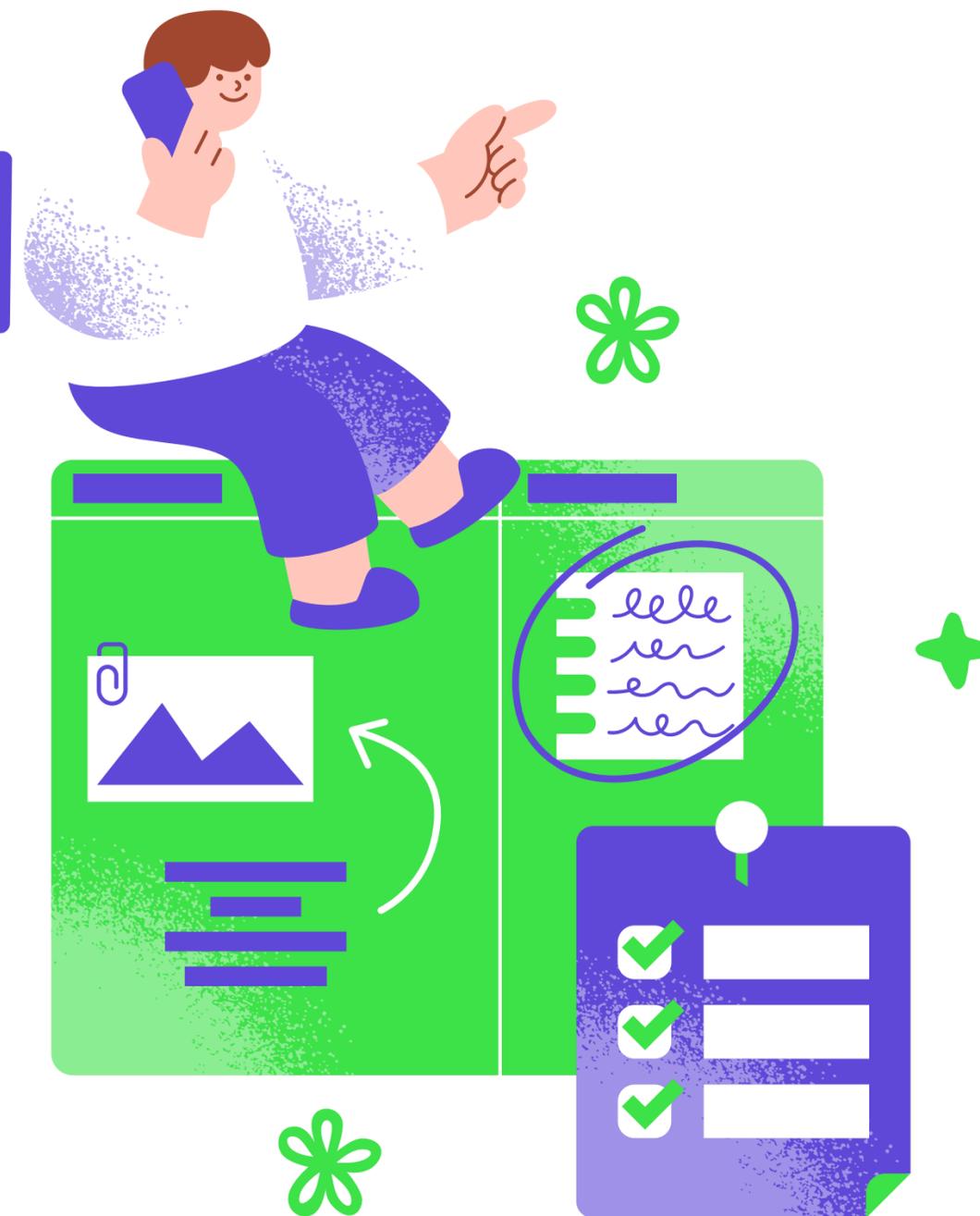
Emotional Regulation

Ability to manage one's emotions to achieve goals, complete tasks or direct behavior

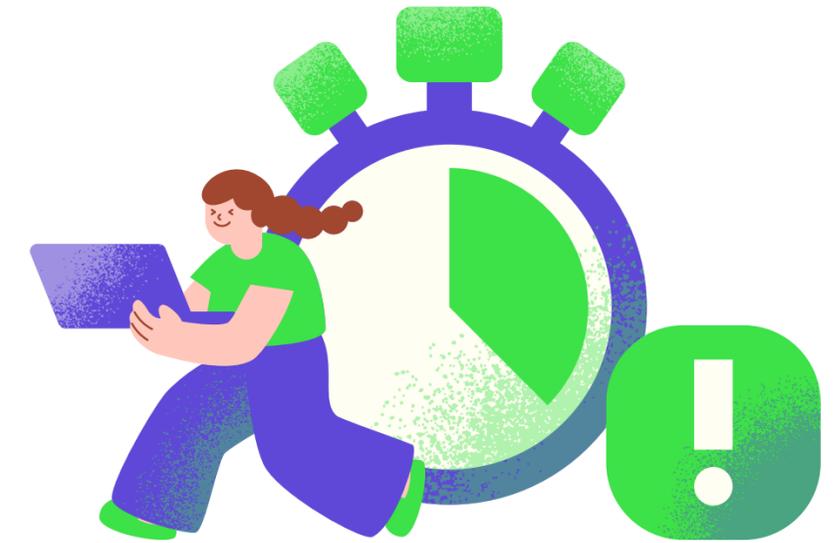
SELF MONITOR



PLANNING, ORGANIZATION & TIME MANAGEMENT



STRATEGIES



PLANNING

- Set goals
- Break plan into steps
- Prioritize most important first



ORGANIZING

- Use an organization system
- Use checklists and outlines



TIME MANAGEMENT

- Estimate and track time
- Schedule time to use planner
- Use timers for reminders

LOW TECH TOOLS



GRAPHIC
ORGANIZERS

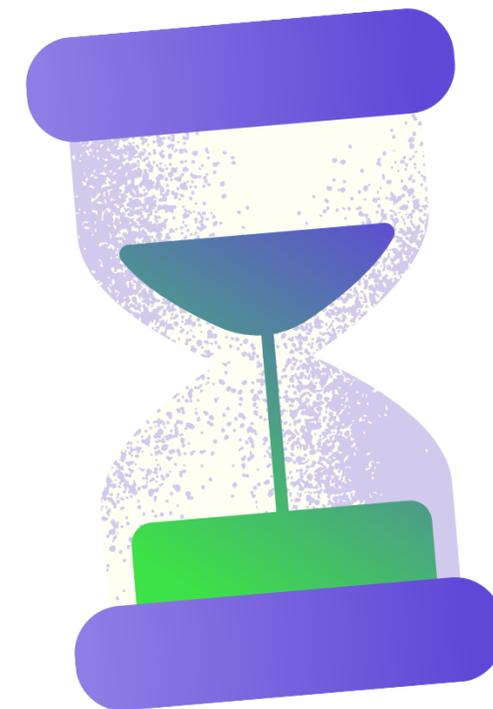
VISUAL
SCHEDULES

AGENDAS,
CALENDARS
& PLANNERS

COLOR
CODING &
HIGH -
LIGHTERS

TIMERS

CHECKLISTS:
ELEM
SEC



TECH TOOLS



1

ASSIGNMENT CALCULATOR

Breaks down projects into
manageable steps

GOBLIN: MAGIC TO DO

2

CLASSROOM SCREEN

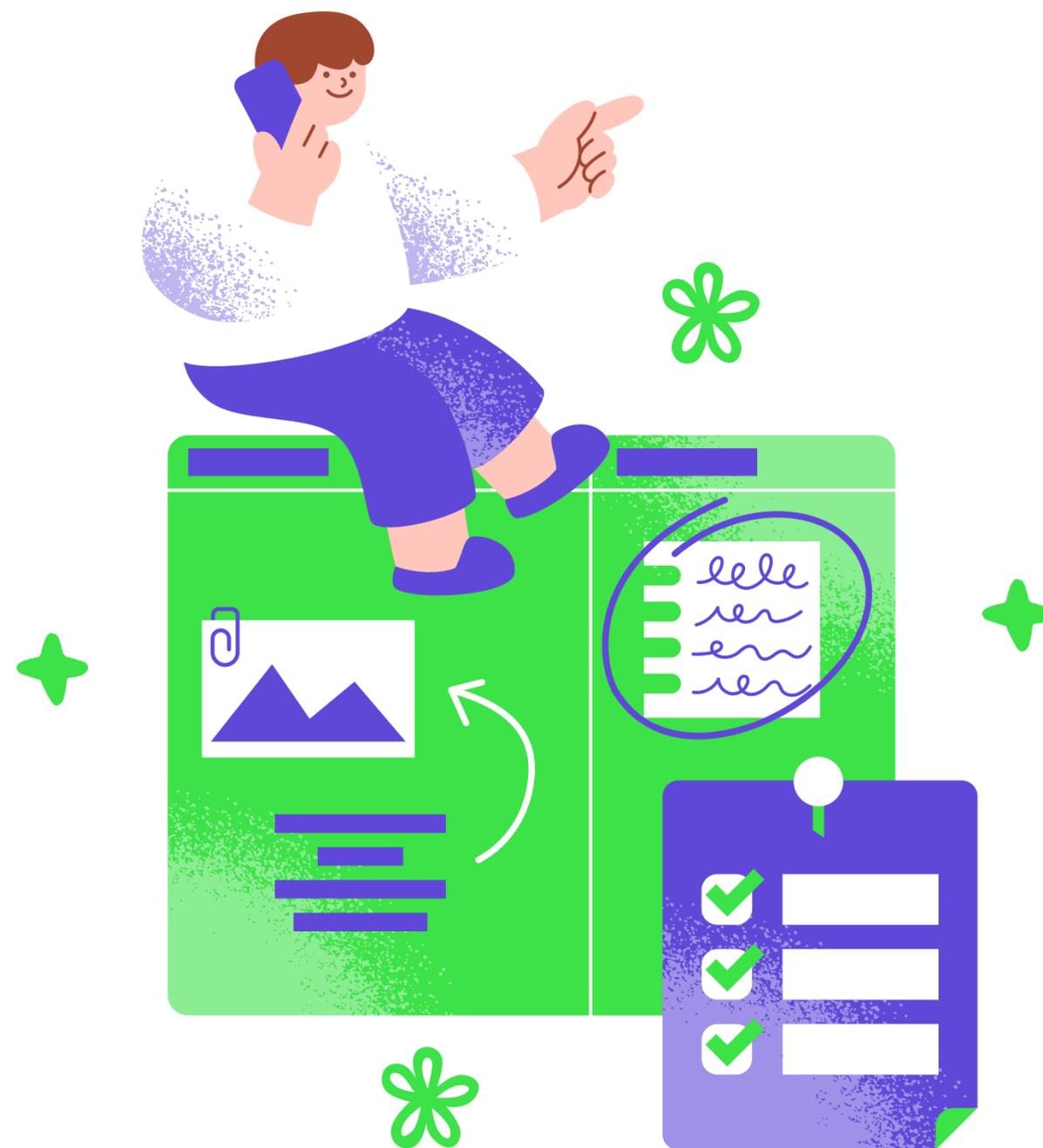
Online whiteboard to keep
students on track in the
classroom (polls, timers,
sound meters, randomized
group generator, etc.)

3

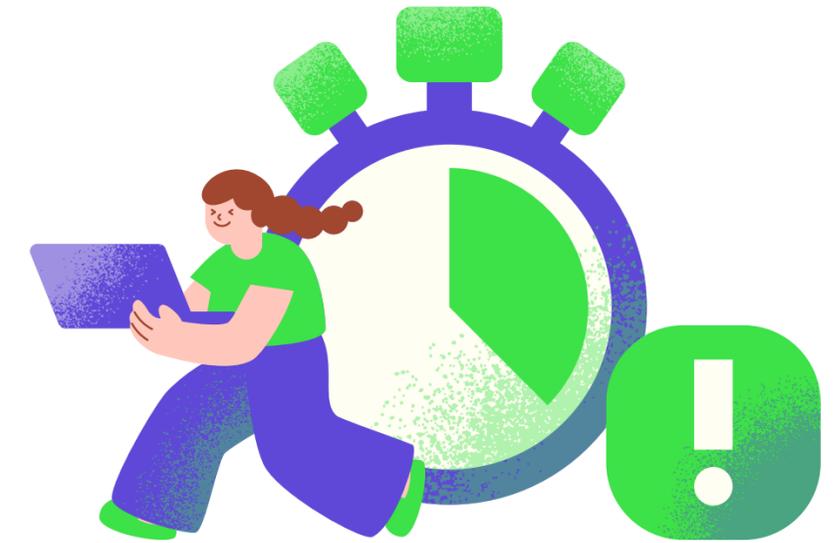
POMODORO TIMER

Technique using a timer
to separate work into
intervals with short
breaks

EMOTIONAL REGULATION



STRATEGIES



EMOTIONAL CONTROL

- Practice Co-Regulation
- Be aware of emotions
- Positive self-talk
- Practice ways to manage big emotions



SHIFTING & FLEXIBILITY

- Use visual schedules & alert for changes
- Peer modeling
- Teach visual imagery or phrases for thought stopping



INHIBITION

- Role-Play problematic situations
- Ask “What will happen if I do this?”
- Use self-evaluation
- Teach replacement behavior

LOW TECH TOOLS

SOCIAL
SCRIPTS &
STORIES

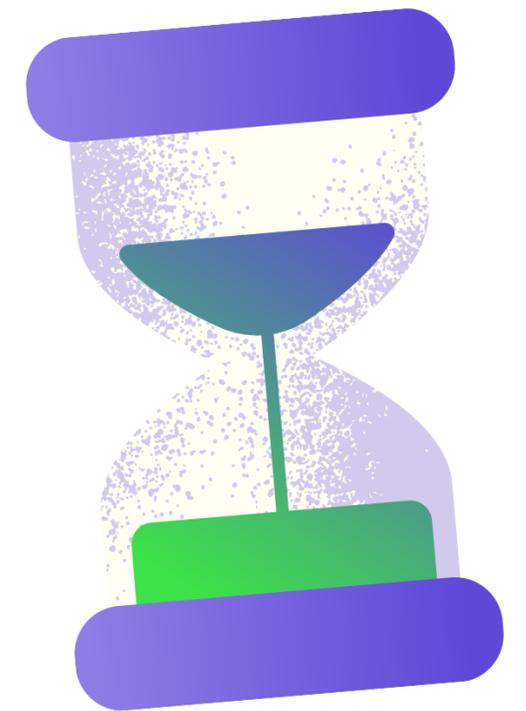
VISUAL
SCHEDULES

BEHAVIOR
CHART
WITH
REWARDS

EMOTION
CHARTS

VISUAL
REMINDERS
AND CUES

FIDGETS



TECH TOOLS



1

BREATHING EXERCISES

3 examples of breathing techniques students can use

2

LESSON PIX

Inexpensive visual support maker
Emotional Check In
Expectations & Reminders
Contingency Maps
Wrist Bands

3

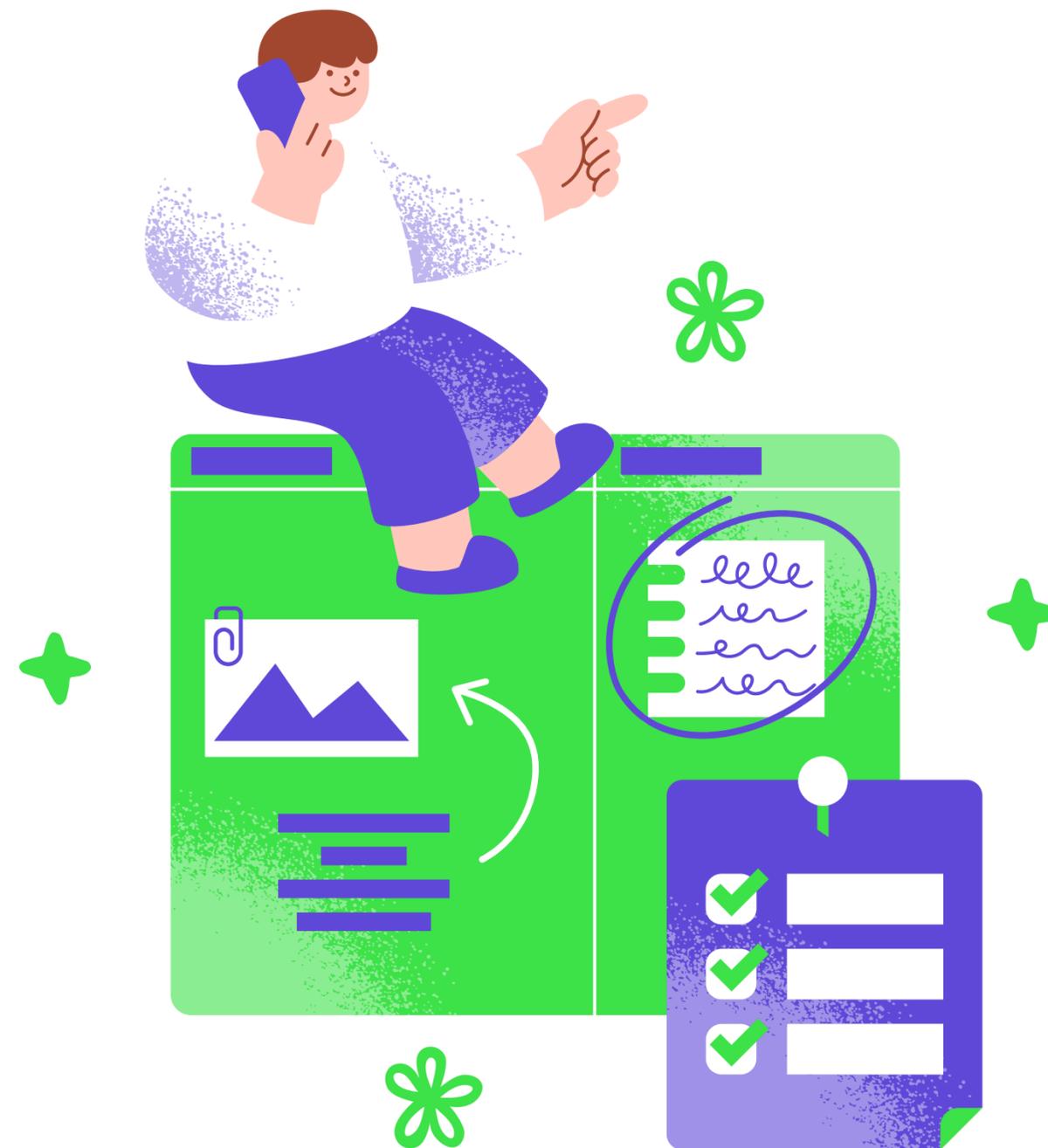
VIRTUAL CALMING ROOM

Free website using sounds, visual relaxation, exercise/yoga, games/puzzles to reduce anxiety/stress and increase mindfulness

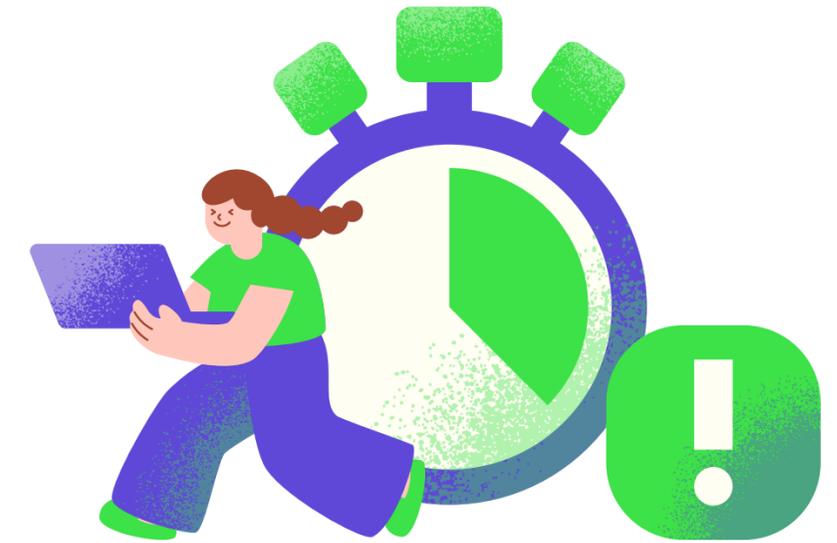
ATTENTION & FOCUS

**“INFORMATION THAT IS NOT
ATTENDED TO, THAT DOES NOT
ENGAGE LEARNER’S COGNITION, IS IN
FACT INACCESSIBLE”**

@CAST



STRATEGIES



ATTENTION

- Reminders and cues to pay attention
- Use timers to help focus



INITIATION

- Set mini goals
- Divide task into smaller steps



SELF- MONITORING

- Use a checklist
- Review work before turning in
- Track and celebrate growth

LOW TECH TOOLS

CHOICE
BOARDS

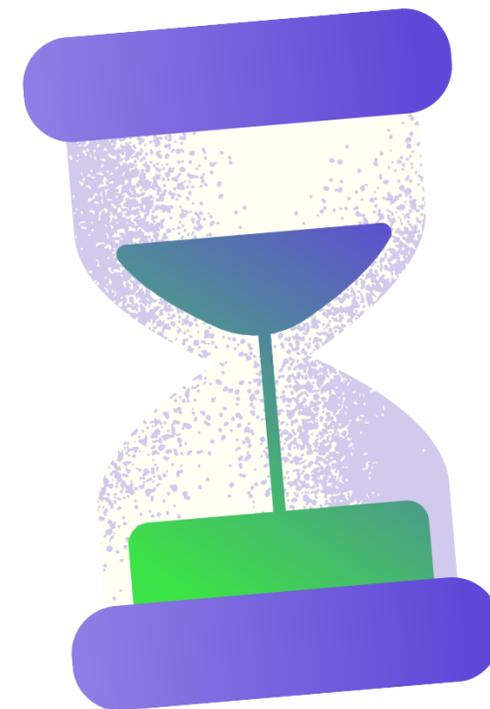
**VISUAL
SCHEDULES**

RATING
SCALES
FORMS SELF
REFLECTION

CHECKLISTS

TIMERS

FIDGETS



TECH TOOLS



1

MOVE IT EXTENSION

Stay active and incorporate breaks into online work

2

GO NOODLE

Short videos and activities for exercise, brain breaks and mindfulness

3

SIMPLIFY WEBSITES

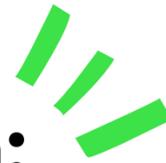
Limit distractions websites by simplifying the screen with Immersive Reader

[Article](#)

REFERENCES



Idaho Department of Education:
Cognitive Functioning & Psychological
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How to Deploy the Amazing Power of
the Teen Brain

Prioritizing Executive Functioning Skills with
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Opportunities. Presented at Closing the Gap, 2023.

